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# DE PLANTIS TOXICARIIS E MUNDO NOVO TROPICAL COMMENTATIONES XXXVI.

A NOVEL METHOD OF UTILIZING

### THE HALLUCINOGENIC BANISTERIOPSIS.

#### RICHARD EVANS SCHULTES

The hallucinogen so widely employed in the western Amazon and along the Pacific coastal region of Colombia-variously known as ayahuasca, caapi, natema, pindé or yajé—is almost exclusively prepared as a drink (Schultes: Bot. Mus. Leafl., Harvard Univ. 18 (1957) 1 -56). The basic ingredient is the bark of either Banisteriopsis Caapi or B. inebrians, two forest lianas of the Malpighiaceae which have psychoactive  $\beta$ -carboline alkaloids: harmine, harmaline and tetrahydoharmine. Frequently other plants are used as additives-a number of species in sundry families, some of which are known to contain various psychoactive principles (Rivier, L. et J.-E Lindgren: Econ. Bot. 26 (1972) 101-129). There are two plants, however, that are added to the drink over a wide area to increase and lengthen the intoxication: the leaves of Diplopteris Cabrerana (formerly known as Banisteriopsis Rusbyana) of the Malpighiaceae and the leaves of the rubiaceous Psychotria viridis (Schultes et Hofmann: The Botany and Chemistry of Hallucinogens (Ed. 2, 1979) 163-185; der Marderosian, A., H. V. Pinkley et M. F. Dobbins; Am. Journ. Pharm. 140 (1968) 137-147). This malpighiaceous narcotic preparation has been studied by scores of botanists, ethnobotanists, anthropologists, pharma-

cologists and phytochemists and its use reported by many travellers and explorers for more than a century since the identification by the British plant explorer Richard Spruce who collected the type material of *Banisteriopsis Caapi* in 1851

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(Spruce R. [Ed. A. R. Wallace] Notes of a Botanist on the Amazon and Andes 2 (1908) 413-425). All reports have indicated that the bark is prepared as either a decoction or infusion and is ceremonially drunk.

During a recent brief visit to Araracuara on the Río Caquetá in the Comisaría del Amazonas of Colombia, it was discovered that the Witoto Indians, who cultivate Banisteriopsis Caapi, do not employ it as a drink but smoke the dried and crushed leaves

and young bark. Although the Andoques, who live in the same area, apparently use Banisteriopsis as a drink, there is evidence not yet fully substantiated that they likewise smoke the drug; but their usual employment of it is as a drink (La Rotta: Univ. Nac., Colombia, Dept. Biología, Corporación de Araracuara, Observaciones Etnobotánicas sobre Algunas Especies Utilizadas por la Comunidad Indígena Andoque (1983) 58-59). Several juvenile, cultivated plants of Banisteriopsis Caapi were noted in the locality. Conversation with a knowledgeable Witoto medicine man indicated that leaves are dried, broken into small pieces and prepared in cigarette-form in pieces of the leaves of the Heliconia plant. It is smoked in ceremonies by medicine men for its vision-producing properties. It is never smoked with tobacco for, according to the Indians, the intoxication produced would be extremely strong and long-lasting and would induce very unpleasant after-effects.

The Witotos call Banisteriopsis Caapi oo'-na-oo. The Andoques recognize several "kinds" of the yajé liana, "according to the spirit of the animal that possesses the person who has initiated the taking of the drink: with inotaino', the person is transformed into a jaguar; with hapataino', into a boa; and with kadanytaino', into a hawk" (La Rotta: loc. cit.).

The Witoto Indians are noteworthy in using biodynamic plants in ways that differ markedly from those of other neighbouring tribes in the northwestern Amazonia.

Instead of preparing a psychoactive snuff from species of the myristicaceous Virola, for example, they-together with their neighbours, the Boras-prepare pellets or "pills" from the resinlike exudate of the bark of several species of Virola for halluci-

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nogenic purposes (Schultes: Bot. Mus. Leafl., Harvard Univ. 22 (1969) 229–240; Schultes, Swain et Plowman: loc. cit. 25 (1977) 259–272).; Aboriginally, instead of smoking tobacco communally, they consume it, together with coca, as a thick liquid called *ambil* which they smear on the upper gums (Schultes: Agric. Trop. No. 9 (1945) 19–22). Many other aspects of the ethnopharmacological use of plants amongst the Witotos suggest that their pharmacopeal knowledge is extensive and

# distinct.

### Banisteriopsis Caapi (Spr. ex Griseb.) Morton in Journ. Wash. Acad. Sci 21 (1931) 486.

COLOMBIA: Comisaría del Amazonas, Río Caquetá, Araracuara, "Cultivated by Witoto Indians. Leaves pulverized and smoked as hallucinogen. July 1985. *R. E. Schultes sine num.* 

Sterile voucher specimens were collected. They were determined by Schultes as representing *Banisteriopsis Caapi*, an identification confirmed by William Anderson. Voucher specimens have been deposited in the Herbario Nacional de Colombia, in the Economic Herbarium of Oakes Ames, Harvard

University and in the Herbarium of the University of Michigan.

